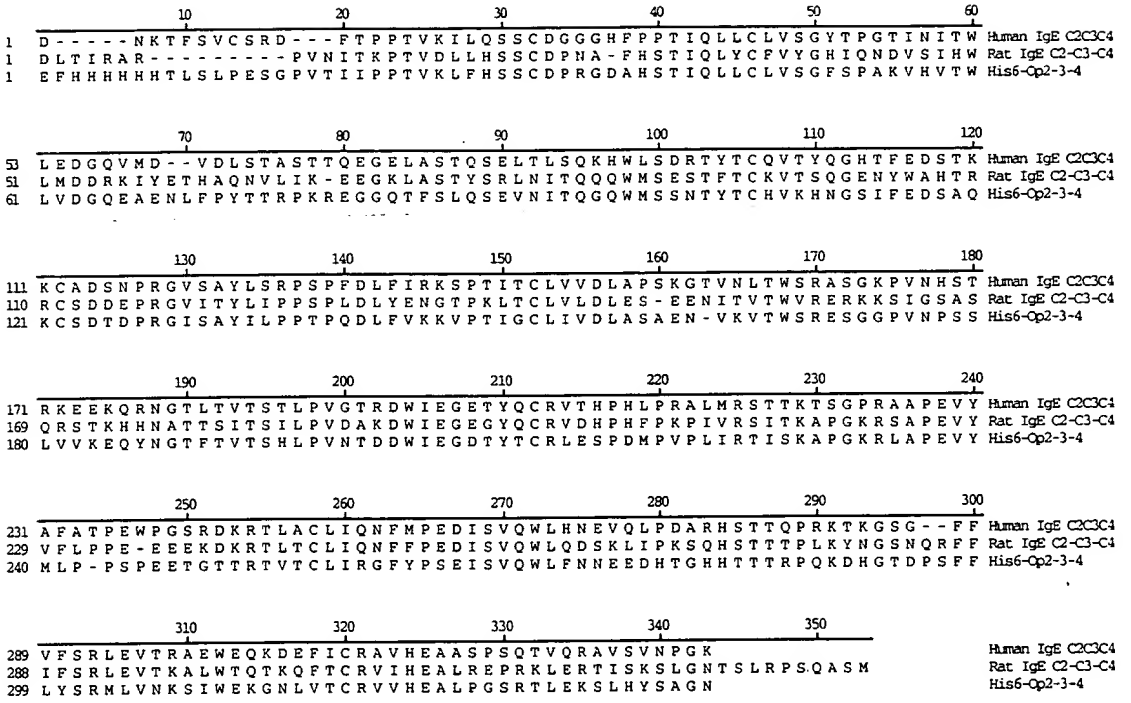
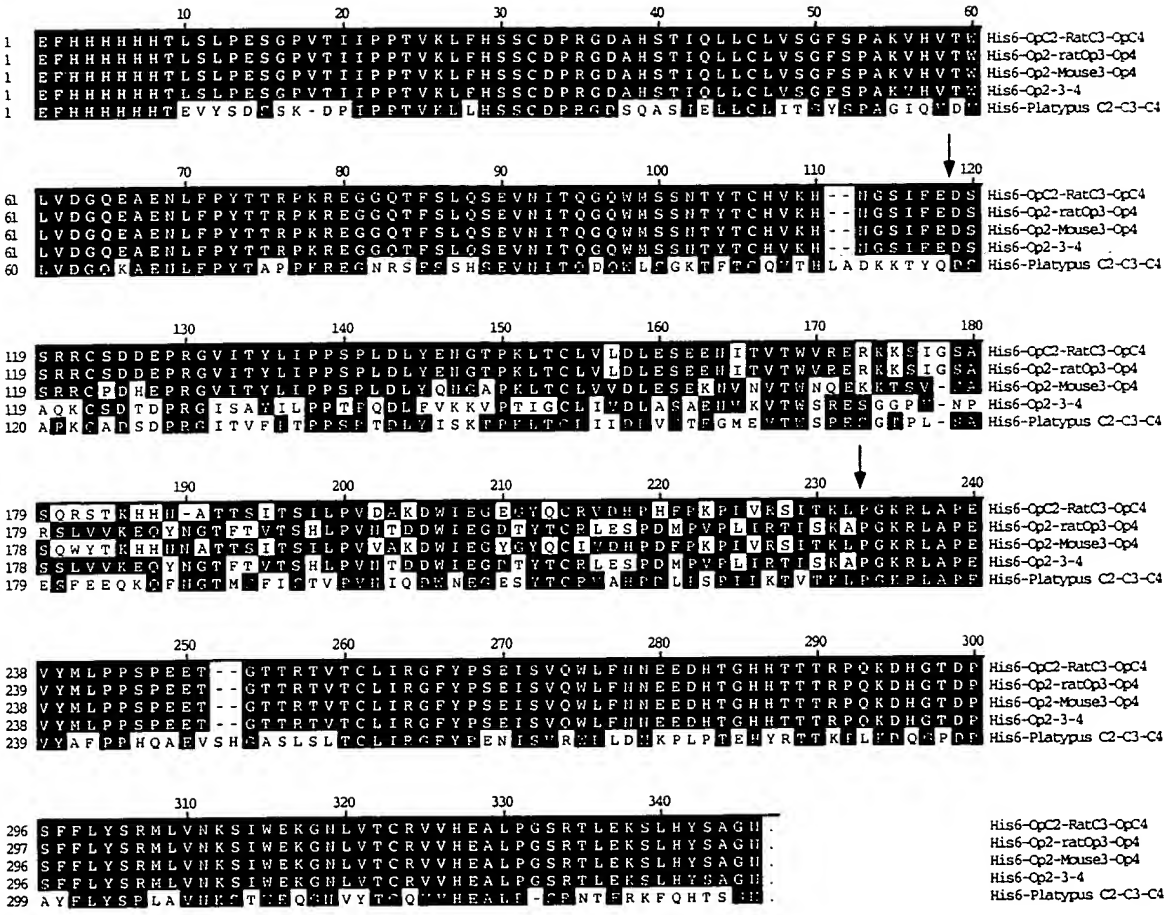
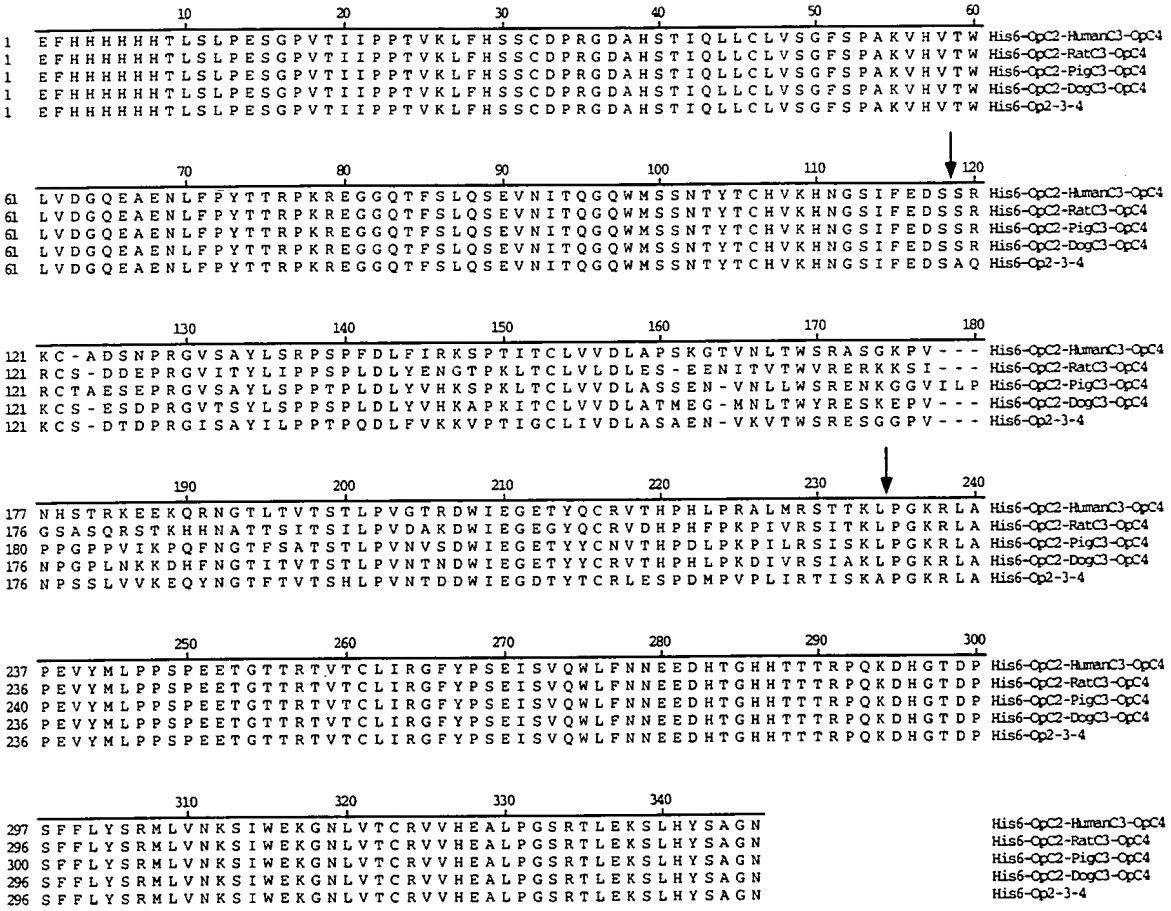
# Figure 1


10 20 30 40 50 60
1 D-----NKTFSVCSRD---FTPPTVKILQSSCDGGGHFPPTIQLLCLVSGYTPGTINITW Human IgE C2C3C4
1 DLTIRAR---------PVNITKPTVDLLHSSCDPNA-FHSTIQLYCFVYGHIQNDVSIHW Rat IgE C2-C3-C4
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-Op2-3-4
70 80 90 100 110 120
53 LEDGQVMD--VDLSTASTTQEGELASTQSELTLSQKHWLSDRTYTCQVTYQGHTFEDSTK Human IgE C2C3C4
51 LMDDRKIYETHAQNVLIK-EEGKLASTYSRLNITQQQWMSESTFTCKVTSQGENYWAHTR Rat IgE C2-C3-C4
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSAQ His6-Op2-3-4
130 140 150 160 170 180
111 KCADSNPRGVSAYLSRPSPFDLFIRKSPTITCLVVDLAPSKGTVNLTWSRASGKPVNHST Human IgE C2C3C4
110 RCSDDEPRGVITYLIPPSPLDLYENGTPKLTCLVLDLES-EENITVTWVRERKKSIGSAS Rat IgE C2-C3-C4
121 KCSDTDPRGISAYILPPTPQDLFVKKVPTIGCLIVDLASAEN-VKVTWSRESGGPVNPSS His6-Op2-3-4
190 200 210 220 230 240
171 RKEEKQRNGTLTVTSTLPVGTRDWIEGETYQCRVTHPHLPRALMRSTTKTSGPRAAPEVY Human IgE C2C3C4
169 QRSTKHHNATTSITSILPVDAKDWIEGEGYQCRVDHPHFPKPIVRSITKAPGKRSAPEVY Rat IgE C2-C3-C4
180 LVVKEQYNGTFTVTSHLPVNTDDWIEGDTYTCRLESPDMPVPLIRTISKAPGKRLAPEVY His6-Op2-3-4
250 260 270 280 290 300
231 AFATPEWPGSRDKRTLACLIQNFMPEDISVQWLHNEVQLPDARHSTTQPRKTKGSG--FF Human IgE C2C3C4
229 VFLPPE-EEEKDKRTLTCLIQNFFPEDISVQWLQDSKLIPKSQHSTTTPLKYNGSNQRFF Rat IgE C2-C3-C4
240 MLP-PSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDPSFF His6-Op2-3-4
310 320 330 340 350
289 VFSRLEVTRAEWEQKDEFICRAVHEAASPSQTVQRAVSVNPGK Human IgE C2C3C4
288 IFSRLEVTKALWTQTKQFTCRVIHEALREPRKLERTISKSLGNTSLRPSQASM Rat IgE C2-C3-C4
299 LYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-Op2-3-4

# Figure 2a


His6-OpC2-RatC3-OpC4
His6-Op2-ratOp3-Op4
His6-Op2-Mouse3-Op4
His6-Op2-3-4
His6-Platypus C2-C3-C4

# Figure 2b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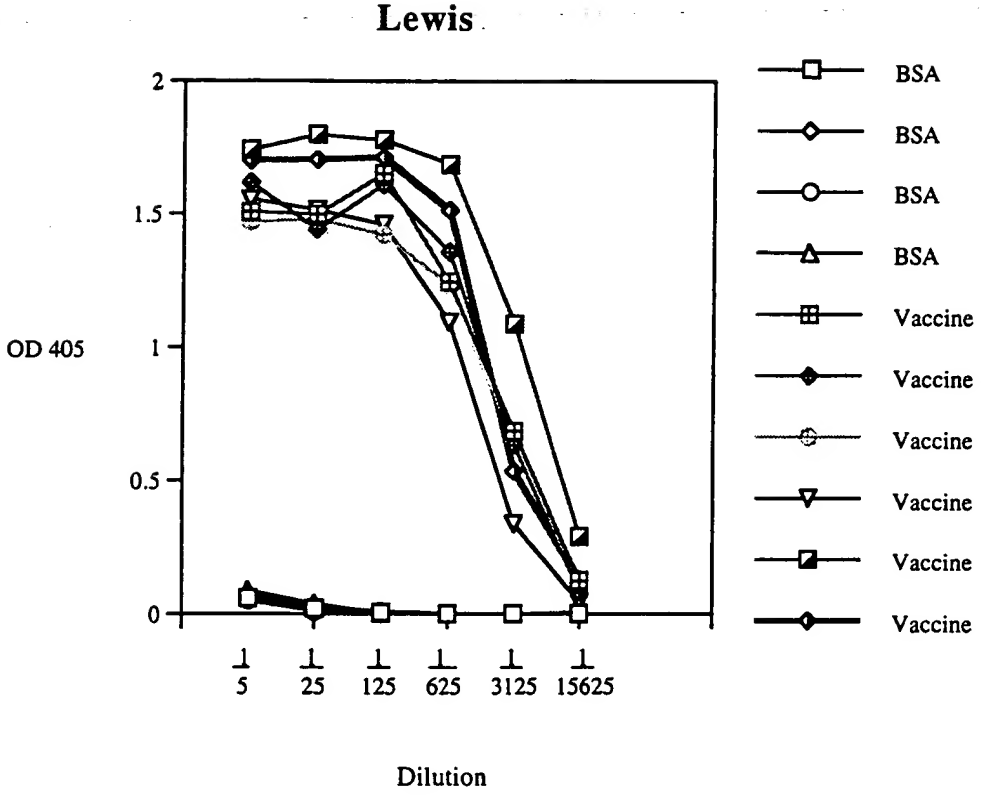
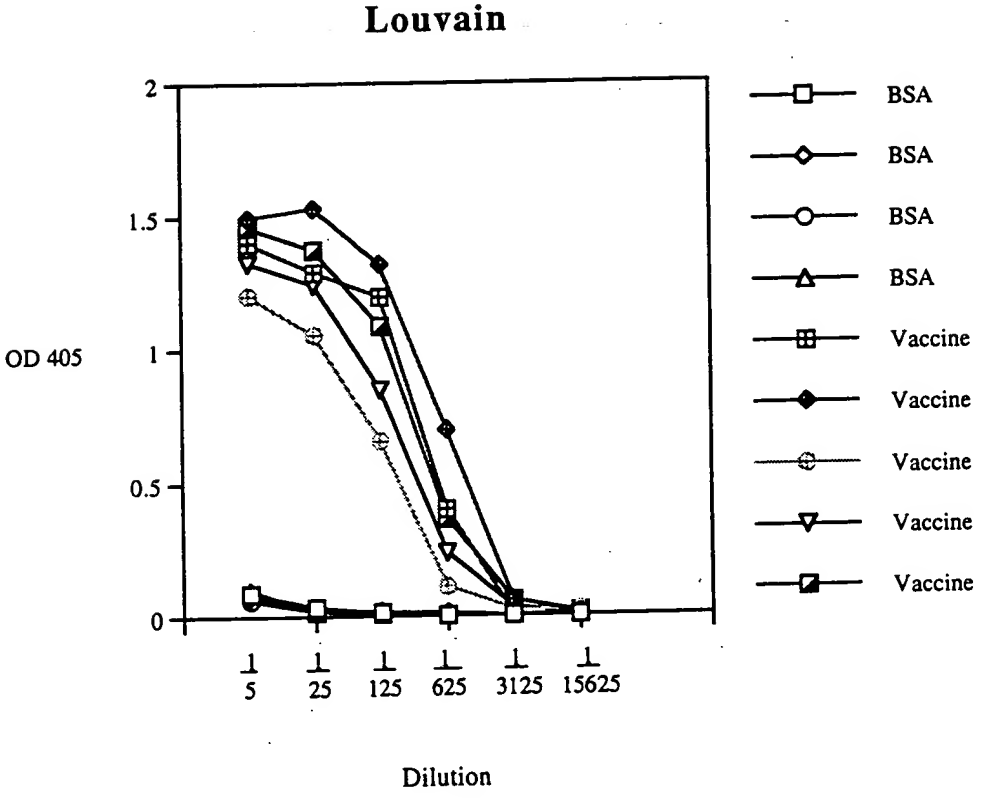
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-OpC2-HumanC3-OpC4
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-OpC2-RatC3-OpC4
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-OpC2-PigC3-OpC4
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-OpC2-DogC3-OpC4
1 EFHHHHHHTLSLPESGPVTIIPPTVKLFHSSCDPRGDAHSTIQLLCLVSGFSPAKVHVTW His6-Op2-3-4
70 80 90 100 110 120
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSSR His6-OpC2-HumanC3-OpC4
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSSR His6-OpC2-RatC3-OpC4
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSSR His6-OpC2-PigC3-OpC4
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSSR His6-OpC2-DogC3-OpC4
61 LVDGQEAENLFPYTTRPKREGGQTFSLQSEVNITQGQWMSSNTYTCHVKHNGSIFEDSAQ His6-Op2-3-4
130 140 150 160 170 180
121 KC-ADSNPRGVSAYLSRPSPFDLFIRKSPTITCLVVDLAPSKGTVNLTWSRASGKPV--- His6-OpC2-HumanC3-OpC4
121 RCS-DDEPRGVITYLIPPSPLDLYENGTPKLTCLVLDLES-EENITVTWVRERKKSI--- His6-OpC2-RatC3-OpC4
121 RCTAESEPRGVSAYLSPPTPLDLYVHKSPKLTCLVVDLASSEN-VNLLWSRENKGGVILP His6-OpC2-PigC3-OpC4
121 KCS-ESDPRGVTSYLSPPSPLDLYVHKAPKITCLVVDLATMEG-MNLTWYRESKEPV--- His6-OpC2-DogC3-OpC4
121 KCS-DTDPRGISAYILPPTPQDLFVKKVPTIGCLIVDLASAEN-VKVTWSRESGGPV--- His6-Op2-3-4
190 200 210 220 230 240
177 NHSTRKEEKQRNGTLTVTSTLPVGTRDWIEGETYQCRVTHPHLPRALMRSTTKLPGKRLA His6-OpC2-HumanC3-OpC4
176 GSASQRSTKHHNATTSITSILPVDAKDWIEGEGYQCRVDHPHFPKPIVRSITKLPGKRLA His6-OpC2-RatC3-OpC4
180 PPGPPVIKPQFNGTFSATSTLPVNVSDWIEGETYYCNVTHPDLPKPILRSISKLPGKRLA His6-OpC2-PigC3-OpC4
176 NPGPLNKKDHFNGTITVTSTLPVNTNDWIEGETYYCRVTHPHLPKDIVRSIAKLPGKRLA His6-OpC2-DogC3-OpC4
176 NPSSLVVKEQYNGTFTVTSHLPVNTDDWIEGDTYTCRLESPDMPVPLIRTISKAPGKRLA His6-Op2-3-4
250 260 270 280 290 300
237 PEVYMLPPSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDP His6-OpC2-HumanC3-OpC4
236 PEVYMLPPSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDP His6-OpC2-RatC3-OpC4
240 PEVYMLPPSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDP His6-OpC2-PigC3-OpC4
236 PEVYMLPPSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDP His6-OpC2-DogC3-OpC4
236 PEVYMLPPSPEETGTTRTVTCLIRGFYPSEISVQWLFNNEEDHTGHHTTTRPQKDHGTDP His6-Op2-3-4
310 320 330 340
297 SFFLYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-OpC2-HumanC3-OpC4
296 SFFLYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-OpC2-RatC3-OpC4
300 SFFLYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-OpC2-PigC3-OpC4
296 SFFLYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-OpC2-DogC3-OpC4
296 SFFLYSRMLVNKSIWEKGNLVTCRVVHEALPGSRTLEKSLHYSAGN His6-Op2-3-4

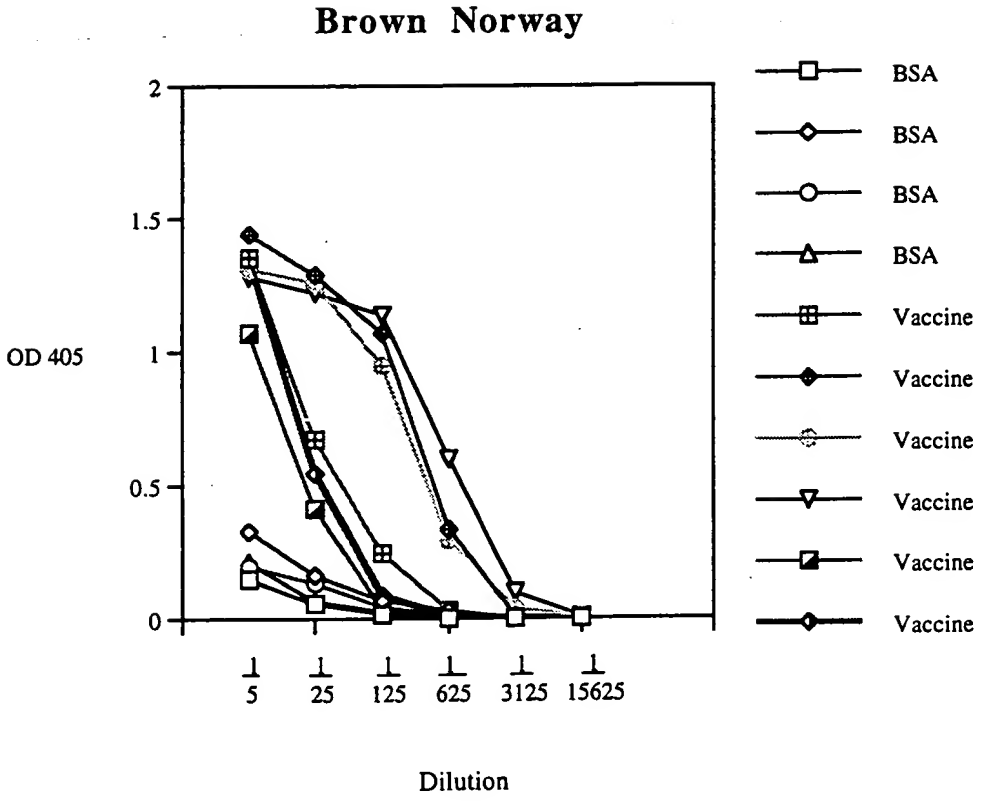
# Figure 3a


Lewis
OD 405
2
1.5
1
0.5
0
5
25
125
625
3125
15625
Dilution
BSA
BSA
BSA
BSA
Vaccine
Vaccine
Vaccine
Vaccine
Vaccine
Vaccine

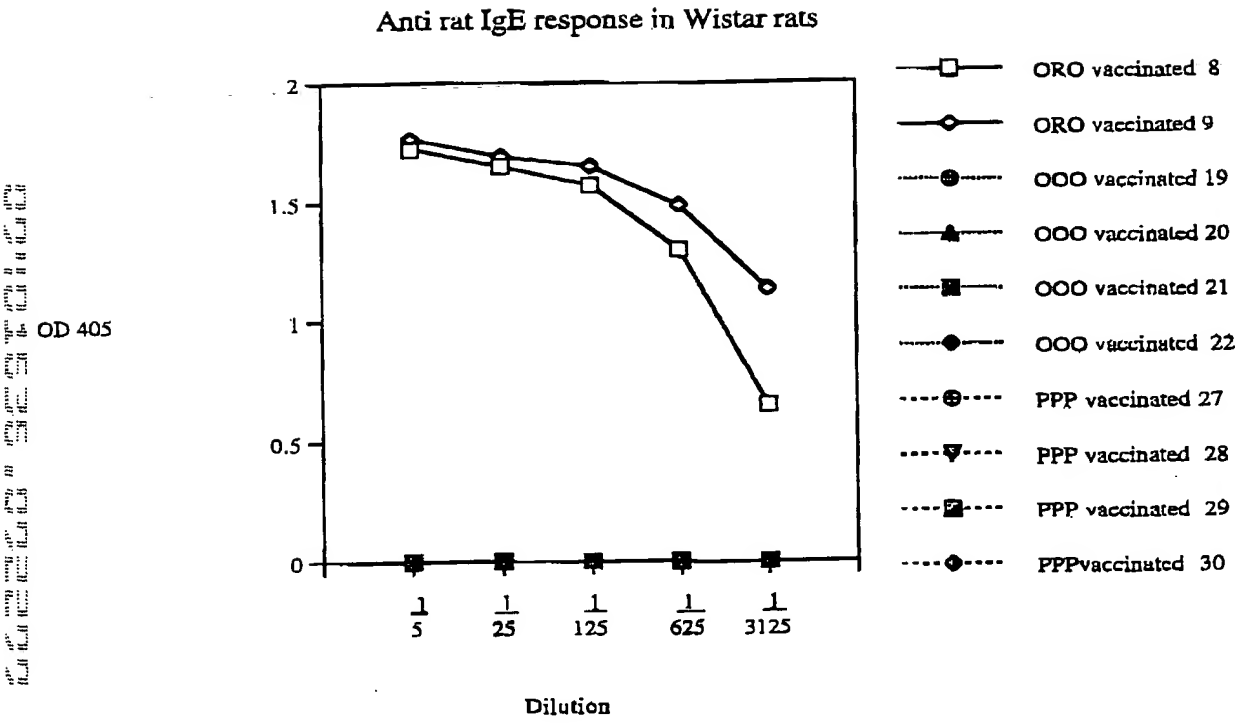
# Figure 3b


Louvain
OD 405
2
1.5
1
0.5
0
1/5
1/25
1/125
1/625
1/3125
1/15625
Dilution
BSA
BSA
BSA
BSA
Vaccine
Vaccine
Vaccine
Vaccine
Vaccine

# Figure 3c


Brown Norway
OD 405
2
1.5
1
0.5
0
5
25
125
625
3125
15625
Dilution
BSA
BSA
BSA
BSA
Vaccine
Vaccine
Vaccine
Vaccine
Vaccine
Vaccine

# Figure 4


Anti rat IgE response in Wistar rats
OD 405
2
1.5
1
0.5
0
1/5
1/25
1/125
1/625
1/3125
Dilution
ORO vaccinated 8
ORO vaccinated 9
OOO vaccinated 19
OOO vaccinated 20
OOO vaccinated 21
OOO vaccinated 22
PPP vaccinated 27
PPP vaccinated 28
PPP vaccinated 29
PPPvaccinated 30